EXHIBIT 3

Antitrust and higher education: was there a conspiracy to restrict financial aid?

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In 1991, the U.S. Justice Department's Antitrust Division accused MIT and the Ivy League schools of fixing prices. The schools claimed that their cooperative behavior enabled them to concentrate financial aid on needy students and did not affect price. We analyze the empirical determinants of tuition and find no evidence that the schools' agreement raised price. We also analyze the appropriate application of the antitrust laws to nonprofit institutions and conclude that, in the absence of adverse price or output effects, the justification for the collective action should be considered under the "Rule of Reason."

1. Introduction

■ In 1991, the Antitrust Division of the U.S. Department of Justice sued MIT and the eight schools in the Ivy League under Section 1 of the Sherman Act for engaging in a conspiracy to fix the prices paid by students and their families. The Antitrust Division claimed that the schools conspired on financial aid policies in an effort to reduce aid and raise revenues. The schools justified their cooperative behavior by explaining that it enabled them to concentrate aid only on those in need and thereby helped the schools to achieve their goals of need-blind admission coupled with financial aid to all needy admittees. All the Ivy League schools signed a consent decree agreeing to stop the challenged cooperative activity. MIT refused to sign and went to trial. The case received widespread news coverage, and editorials supporting the schools' policy and MIT's decision to fight the government appeared in several major newspapers. In September 1992, MIT was found

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be charged a price that depends on their family income. (Price discrimination against rich students is likely to raise more revenue than price discrimination against needy students.) Second, the Overlap schools' need-blind admission policy is inconsistent with profit maximization. Third, the likelihood of successful collusion is low in an industry whose product dimensions are as heterogeneous as those of higher education (see also Masten, 1993). Still, these facts cannot rule out that average price rose as a result of Overlap.

5. Empirical analysis of Overlap

■   The schools claim that the Overlap process allowed them to concentrate their scarce financial resources on needy students while leaving their total revenues unchanged. The government claims that the Overlap conduct was a way to limit the amount of discounting off of list price and thereby raise the schools' revenues. No one claims that enrollment was affected by the Overlap conduct. Under the government's theory, the average price paid per student should be higher with the Overlap conduct than without, and hence Overlap increased the schools' revenues. Under the schools' theory, the average price paid per student should be unaffected by the Overlap conduct.[16]

There are two difficulties in testing empirically whether the evidence supports the government's or the schools' claim. First, the best approach would be a before-and-after test. However, Overlap meetings have been occurring for over 30 years. It is difficult to obtain information from before the start of the Overlap meetings, and even if available, such information would not be terribly informative because financial aid was much less important then. Moreover, Overlap meetings ceased as of the 1991–1992 academic year, so there are only a few years of post-Overlap data—data that would have reflected the presence of the lawsuit. Second, a comparison of the average prices paid at Overlap and non-Overlap schools would fail to isolate the effect of Overlap unless one could adjust for the many features that distinguish Overlap schools from non-Overlap schools. The Overlap schools are among the most highly selective and best endowed of all schools.

Our analysis of the competing claims is based on a comparison of Overlap and non-Overlap schools. To overcome the difficulty of comparing the prices charged by schools with different characteristics, we constructed a regression model of average price paid per student. The sample of schools used in the regression analysis was based on classifications established by the Carnegie Foundation for the Advancement of Teaching. Every several years, the Carnegie Foundation classifies schools into a variety of categories based on the school's observable characteristics such as research budget and number of degrees granted (subjective evaluations such as reputation are not used). We found that five different 1987 Carnegie classifications encompassed the 23 Overlap schools. We then gathered the available annual information on all schools in those five Carnegie classifications, obtaining annual information for the period 1984–1990 for about 225 private and public schools.

The dependent variable, p_{it}, is real average price paid per student for school i in year t. Real average price per student equals gross tuition plus room and board plus mandatory fees minus the average institutionally administered grant per student.[17] (Hence, student payments financed by loans and jobs are included in p_{it}.) We deflate p_{it} and all other financial data by the all-items consumer price index.

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[16] These empirical predictions also incorporate the possibility that Overlap schools engaged in a tuition fix (which the government did not allege). If the schools did fix tuition, then the average price paid per student should be higher at Overlap schools.

[17] Institutionally administered grants consist of a school's own money and some federal aid, principally Supplemental Educational Opportunity Grants (SEOG). The total amount of SEOG grants at a school is typically small and, based on a separate analysis, does not differ systematically between the Overlap and non-Overlap schools. For some schools, the total amount of aid distributed was not reported for some years. In these cases, we imputed the missing information from data for different years from the same school. The results are not sensitive to variations in the imputation method used.